

PERBANDINGAN SENSITIVITAS DAN SPESIFISITAS TIME UP AND GO TEST (TUG) DAN TIME UP AND GO TEST MANUAL(TUGM)TERHADAP KEJADIAN JATUH PADA LANJUT USIA DI PANTI WREDA DHARMA BHAKTI SURAKARTA

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Jatuh merupakan kejadian terbesar kecelakaan pada lanjut usia. Keseimbangan merupakan faktor utama penyebab jatuh. Penilaian sensitifitas dan spesifisitas TUG dan TUGM dapat di gunakan sebagai pertimbangan pemilihan alat ini sebagai tes penyaringan terhadap risiko jatuh pada lansia. Subyek penelitian adalah lansia yang tinggal di panti wreda Dharma Bhakti Surakarta. Jumlah subyek penelitian 45 orang terdiri dari kelompok pernah jatuh ( $n=18$ ) dan belum pernah jatuh [ $n=27$ ]. Rerata umur lansia pernah jatuh 75 tahun.

Pelaksanaan TUG di mulai dengan lansia duduk pada kursi, berdiri, berjalan sejauh 3 meter, berputar dan berjalan kembali menuju kursi. Pada TUGM di tambah dengan membawa gelas berisi air. Di ukur waktu [dalam detik] untuk menyelesaikan tes. Titik potong penentuan gangguan keseimbangan adalah 14 detik (lebih kecil atau sama 14 detik berarti negatif atau tidak ada gangguan keseimbangan).

Hasil sensitivitas TUG (72,2%) lebih rendah dari TUGM (77,8%). Spesifisitas TUG (77,8%) lebih tinggi dari TUGM (66,7%). Lansia dengan riwayat pernah jatuh lebih lambat untuk menyelesaikan TUG ( $F=14,34$ ,  $p<0,05$ ) dan TUGM ( $F=10,306$ ,  $p<0,05$ ) di bandingkan lansia yang belum pernah jatuh.

Kesimpulannya TUG dan TUGM dapat di gunakan sebagai tes penyaringan lansia dengan risiko jatuh. Diperlukan pengkajian lanjut untuk dapat di gunakan sebagai tes diagnostik. Penambahan beban kerja motorik di perlukan pada tes keseimbangan.

**Kata Kunci:** Sensitivitas, TUG, Jatuh, Lanjut Usia. (sensitivity, TUG, fall ,elderly).

## Abstract

Falling is major cause of injury in elderly and balance is thought to be a main factor in causing of falling. Measuring of the sensitivity and the specificity of TUG and TUGM is useful in considering these measurement tools as screening tools for analysing a risk of falling in elderly. Subject of this study was elderly population in Panti Wreda Dharma Bhakti Surakarta. The number of subjects were 45 elderly divided into two groups. Group one was elderly with previous experience of falling (n=18) and group two was elderly with no previous experience of falling (n=27). Elderly in group one had a mean of age of 75 year-old.

TUG was conducting from starting position in sitting followed with getting up to standing and walking in 3 meter distance. Turning a round and walking back to the chair and ended with sitting down on the chair as starting position. Mean while for TUGM, the procedure as mentioned above was added with bringing a glass of water. The time completed the test was measured in second. The cut off time to differentiate elderly with balance problem and elderly with no balance problem was 14 second ( $\leq 14$  second meant elderly with no balance problem).

The analysis showed that the sensitivity of TUG (72,2%) was lower than TUGM (77,8%) however the specificity of TUG (71,8%) was higher than TUGM (66,7%). Elderly with previous history of falling showed they were slower in TUG ( $F=14,34, p<0,05$ ) and TUGM ( $F=10,306, p<0,05$ ) than elderly with no previous history of falling.

Conclusion : TUG and TUGM can be used as a screening test tools for analysing a risk of falling in elderly. Further assessment was needed to decide those measurement tools as diagnostic test tools and a another motoric work load was needed when measuring balance.